

The health costs of climate change in Canada

Climate change is not just an environmental and economic threat. It is also a threat to public health.

Changes in climate are already affecting the health of people in Canada. In the decades to come, these health impacts will intensify, and costs will increase. Climate change will affect everyone living in Canada—but it won't affect everyone equally.

Three factors influence peoples' vulnerability to climate-related health impacts:

Exposure: How much a person comes in contact with climate-related hazards—for example, exposure to heat is reduced if a person has access to a home with air conditioning.

Sensitivity: Factors such as age, pre-existing health conditions, and social and economic conditions—for example, unmanaged diabetes—can increase sensitivity to heat waves and infectious diseases.

Capacity to adapt: The ability to avoid, prepare for, and cope with exposure and sensitivity—for example, someone who earns a high income likely has more access to prescription medications and health services than those who earn less.

Some people are more vulnerable because of age or genetics. Others are put at greater risk by economic disadvantage and discrimination.

Health is determined more by a person's postal code than their genetic code. From asthma complications to high blood pressure, the likelihood that a person experiences poor health—which also increases their vulnerability to climate change—is largely determined by their social context.

Unless governments work together to invest in preparation and prevention, climate change will worsen these existing health inequities and increase costs to Canada's health system and economy.

PROJECTED HEALTH COSTS

Billions of \$ per year by end of century

Canada does not need to be locked into a future of mounting costs, illness, and death resulting from climate change health impacts.

If governments accelerate action to strengthen health systems and address the root causes of vulnerability, the health risks and costs related to climate change can be substantially reduced.



Climate Impact

Ecosystem changes
Permafrost thaw
Heat waves
Air pollution
Wildfire smoke
Severe weather
Floods

Many people in Canada have already experienced health effects related to climate change.

Some effects and costs are easy to quantify, such as heat-related hospitalizations, but the full scope and scale of potential climate change health impacts in Canada are uncertain. While some emerging threats, like mental health impacts, are difficult to estimate and model, they are nonetheless important and deeply felt across the country.

Social determinants will dictate the severity of health outcomes that people experience from climate change impacts.

Adaptation

Cooling centres
Disaster response
Heat warning systems
Primary healthcare
Food and water
Housing
Medications
Flood protection
Education and outreach

Adapting to climate change requires supporting the health of people in Canada over the coming decades.

It's essential to **treat the symptoms** of climate-related health impacts. This involves preventing or reducing the negative impacts of specific health hazards related to climate change as they occur—for example, by increasing emergency response capacity, and developing early warning systems.

Addressing root causes is equally important. This requires tackling the factors that make people vulnerable to climate health hazards—for example, by reducing food and water insecurity increasing access to preventive healthcare, and reducing economic inequities.